

ABSTRACT

This invention relates to methods and apparatus for detecting, quantifying, and/or identifying trace quantities of an anion in the presence of an excess of another anion. One apparatus comprises a sample loop having a first end adapted to be connected to a sample-injection device and a second end adapted to be connected to an inlet of a first separator. An outlet of the first separator has connections to a first waste port and to an inlet of a first anion suppressor. An outlet of the first anion suppressor is connected to a first end of a concentrator and alternatively to waste, the concentrator connected at a second end to a second waste port and alternatively to a pump. The first end of the concentrator is alternatively connected to a second separator inlet, and the second separator is connected at an outlet thereof to an inlet of a second anion suppressor; and an outlet of the second anion suppressor is connected to a mass spectrometer.